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Sugar Beers.

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DURING the trying months of June, July, and August, Burton and other brewers who do not adhere to the use of sugar, or who, on the other hand, use but a minimised proportion of malt substitutes, know, many to their cost, that the sedimentary matters of their beers are more likely to become intermixed with the supernatant fluid, being naturally favoured with those extraordinary fluctuations in climatic influences which are forcing in character, and which are the sole cause during the months specified of bringing about a series of rapid tumultuous changes which are detrimental to the good qualities or dietetic properties of a sound beer. We venture to say that this is perfectly understood by all brewers of any standing; but we wish to draw their attention to the influence of this so-called intermixture which is brought about by rapid circulation of vesicles of gas, and which means in nine cases out of ten objectionable turbidity, unpleasant taste, and leads to premature acidity. The proof of these statements being traced, firstly, to a proportion of the deposit which should have been removed in the preliminary stages of the brewing process; secondly, to the extraction of matter of low stability, such matter predominating in the greater bulk of English grain; and thirdly, to the yeast used for pitching purposes, a somewhat large number of such cells being left in the finished beer (since bright racking samples are ignored), comporting themselves in a manner which favour the deteriorating influences referred to. Now, as regards the influence of yeast and of those wild forms of the genus saccharomyces which Hansen has lately examined, it will, perhaps, be of interest to mention that Pastorianus II. exercises no injurious influence on beer. But two varieties, Sacch. Pastorianus III. and Sacch. ellipsoideus II., cause yeast turbidity, and one, Sacch. Pastorianus I., gives an extremely unpleasant bitter taste to beer without causing turbidity. A beer lately examined, which was perfectly sound and bright, possessed a very bitter and unpleasant sharp taste. A microscopical examination of the sediment showed Sacch. cerevisiæ and a wild form of Sacch. Pastorianus I., mentioned above, and to this is attributed the cause of the bitter taste, since, when cultivated in a state of purity and used for the fermentation of fresh wort, it produced exactly the same taste as the original beer. In view of these remarks, we cannot fail to understand the significance of the cultivation of a stock of yeast from one single cell; and when this experimental operation* finds its way into the majority of English breweries, then, and not till then, will the true cause of that acrid, pungent, nauseous, bitter taste, commonly known as yeast bite, which is so potent in light gravity beers, be understood, and the blame to a certain extent be taken from the rousing systems, although we have ourselves always held to the idea that the bitterness of beers (brewed under conditions such as the stone-square, or Edinburgh rousing system) is not that of the beating back into the fluid of growing or budding yeast, but of the dropping back of old or oxidised cells. Lastly, we should say that, putting on one side the question as to the character of the yeast, malt beers are not, during this time of the year, so stable as those containing a proportion of sugar, and for reasons previously explained; thus the Anglo-Bavarian beer is making much headway, this being a beer brewed from a soft water, one-third of the total extract consisting of sugar, and the storage lasting about one month. We strongly advise brewers to pay attention to these few remarks, since, if understood perfectly, they will go some way towards closing up at least three of the vexed questions in connection with brewing, and show the ameliorating influences naturally obtained by the use of a definite proportion of that non-albumenous constituent, sugar.